

**Clinical Observations of Causers and Victims of Motor Vehicle Incidents;
Brief Report**

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Abstract

Motor vehicle incidents (MVI's) cause more death and injury than wars, acts of terrorism, and disasters put together. Their major cause is 'human error'. The posttraumatic effects on victims of such errors have been well researched, but causers of such errors have not. The hypotheses of this study were that victims and causers of MVI's could be clinically distinguished, and that such distinctions might be useful in the diagnosis, treatment and prevention of MVI's. The results indicated two victim and two causer categories. The victim group contained Posttraumatic Stress and Vulnerable subgroups. The causer group contained Antisocial and Process 'Neurotic' subgroups. Examples are provided of each subgroup. Clinical distinctions between victims and causer groups and subgroups can help to understand the variety of post-MVI 'comorbid' symptoms, and help to achieve more sophisticated approaches to MVI diagnosis, treatment and prevention. It is emphasized that this is a pilot clinical study.

KEY WORDS: Motor vehicle accidents; motor car accidents; motor vehicle incidents; post-traumatic stress disorder; perpetrators; vulnerability, motor vehicle accident causation.

Introduction

Motor vehicle incidents (MVI's), as I prefer to call what are generally referred to as motor vehicle accidents (MVA's) (see below), cause more death and injury than wars, acts of terrorism, and disasters put together, and they are the leading cause of PTSD in the general population (Blanchard & Hicklin, 1997). As a result of technological improvements, most MVI's are now considered to be due to human error.

Most MVI studies in traumatology assume homogenous passive causation, as the term 'accident' implies in the label Motor Vehicle Accidents. Such a concept allows conceptualization only of victims, as might occur in natural disasters- where antecedents to the event are outside the scope of study of traumatology. Yet MVI's may resemble more, say, assaults, or a gun being fired. To not distinguish between causers and victims of MVI's might be as great a heuristic error as to not distinguish between perpetrators and victims of assaults. This lack of distinction may explain some of the conundrums around MVI's- why only a small minority of supposed victims develop PTSD or posttraumatic stress (PTS), and why there is a great variety of disorders comorbid with, or irrespective of PTSD.

MVI studies in traumatology revolve around PTSD, and have been summarized by Bloom (1999). She noted that frequency of PTSD post-MVI varied widely in different studies, but averaged around 10-20% after one year. Factors put forward as predisposing to the development of PTSD were pre-MVI PTSD and other (non-psychotic) psychological disorders, a subjective sense of impending death and dissociation during the MVI, and post-MVI arousal, acute stress disorder, and lack of social support. Those with PTSD commonly suffered comorbid depressive, anxiety and somatic disorders. though these and other disorders existed post-MVI more frequently without PTSD. Pre- and post-MVI disorders other than PTSD tended to be outside the scope of detailed traumatology research.

Studies on causers of MVI's come from epidemiological and stress studies. The former regularly point to young male sociopathic alcoholics causing a significant albeit minority (10%-20%) of MVI's (e.g., Wells-Parker, Cosby & Landrum, 1986; NYS Governor's Traffic Safety Committee, 2000).

Stress studies indicate that a variety of stresses can contribute to MVI's. Such stresses can be stressful situations such as disasters (Valent, 1984) and war (Richter, 1991), relationship and work stresses (Simon & Corbett, 1996), and personality and emotional problems including depressions (e.g., Ehlers, Mayou & Bryant, 1998; Norris, Matthews & Riad, 2000). Stress factors may be funneled into emotional end plates immediately preceding incidents. Such emotions include anger (including road rage), hurt, anxiety, blow to self-esteem and depression (Chan, 1987; NYS Governor's Traffic Safety Committee, 2000).

MVI's can be covert suicidal acts. Isherwood, Adam and Hornblow (1982) found that 10% of vehicle impact patients in an emergency department had pre-MVI suicidal intentions. In a Finnish study, six per cent of driver fatalities were classified as suicides mainly in people stressed by life events (Ohberg, Penttila & Lonnqvist, 1997).

At the very least it seemed possible that in a proportion of vehicle impacts the participants overtly, or more likely covertly, contributed to them. For this reason Stewart and Lord (2002; 2003) suggested replacing the term 'motor vehicle accident' with 'motor vehicle

crashes'. I prefer the term 'motor vehicle incidents' as not all motor vehicle incidents are crashes.

It seemed to me that such differentiation could help to explain the small frequency of PTSD, yet the great variability of post-MVI symptomatology. It seemed possible, for instance, that those who covertly desired an MVI might have different clinical pictures (even no overt symptoms) to those who were sudden victims in an MVI. Diagnosis, treatment and prevention implications for the two groups would be quite different. To my knowledge, no previous study has differentiated victims and causers of MVI's and their potentially different clinical courses.

I decided to conduct a preliminary clinical study. I hypothesized (1) that I would find victims and causers among those who experienced MVI's, and (2) that differentiation between causers and victims might help explain some of the wide diversity of post-MVI repercussions. If causers and victims could be clinically distinguished, such a distinction might aid in MVI diagnosis, treatment and prevention.

Method

The sample I collected came from my private psychiatric practice. In that practice I provided general psychiatric care including insight psychotherapy, as well as legal opinions which included the effects of MVI's on subjects' health.

I examined all patients I had seen in one calendar year, who had either (a) been referred for an opinion on the effects of an MVI or (b) therapy patients who on questioning were found to have been involved in a significant MVI within one year prior to referral (none had MVI's during therapy) and (c) who had no head injury.

The sample consisted of 65 subjects. Each subject had a clinical assessment in which the following were explored: gender, age, marital status, educational level and occupation; family history, personal history, history of previous psychiatric and psychological problems, previous personality, current problems; family history of MVIs, past personal traumas including MVIs; prior vulnerabilities, recent psychosocial stresses and emotional states just prior to MVIs; features of the MVIs, whether self- or other-inflicted, nature of perceived and actual threat, alcohol intake, and mental state at the time of the incident; progress and symptoms since the incident, including legal proceedings, and treatment.

In many cases family, medical and legal corroboration were obtained, and many patients became well known to the interviewer. If possible, factors were rated 1-5, but because the results were only impressions in an exploratory clinical study with an unrepresentative sample, it was felt that closer statistical analyses were not warranted.

The study was of a pilot qualitative clinical nature. If the results warranted, its aim was to draw attention to the possibility of clinically useful categories in MVI's in addition to PTSD.

Results

A clear clinical cleavage between victims and causers became quickly apparent. With only a very slight overlap, 40 victims and 25 causers of MVI's emerged. Further, each group had two clear clinical sub-categories.

Victims

Posttraumatic Stress (PTS) Group

Of the 40 victims, 20 were involved in objectively severe MVIs in which they felt that they were going to die. 8 of the 20 suffered clinical PTSD, while 12 of the 20 fell short of the full diagnostic criteria. The following case is typical of this group.

Case 1: A 28 year old tram conductor had his ticket bag caught in the handle of a passing car while he was changing a tram pole. He remembered his head pounding against the tram. He woke an hour later in hospital, feeling "totally out of control". He heard doctors discussing his grave prognosis.

Over the many months, he kept reliving the incident, in all its various details, in intrusive images, dreams, and eruptions of emotion. At other times he was numb and withdrawn. His personality changed. The legal process triggered and aggravated his symptoms.

This group tended to be relatively older, married, employed, with relatively stable family and current histories. In 5 cases previous traumas (Holocaust, combat and rape) compounded with the MVI's. About a third suffered depressive and anxiety disorders post-MVI as well.

Vulnerable Group

The clinical picture in the other 20 victims was quite different. These subjects did not suffer PTSD, but a variety of acute stress responses and a range of adjustment, mood, anxiety, somatoform and personality disorders.

Case 2. A 28 year old motor mechanic had been a frail irritable asthmatic child, overprotected by his mother. He compensated for his vulnerability by immersion in body building, athletic achievements, and physical type work. An MVI threatening little danger to life led to a slight leg disability, but sufficient to interfere with sport and work. This shattered the patient's compensation mechanisms, and his vulnerabilities were re-exposed. He became a child-like, dependent, irritable, person, hypochondriacally worried about his breathing and heart.

Many in this group were younger, vulnerable individuals, in whom an MVI, even if minor, re-exposed previous vulnerabilities and symptoms associated with them.

Both victim groups tended to come from the legal opinion section of my practice. Insurance companies tended to disbelieve the second group, in which minor injuries could cause major symptoms. Settlement of injury claims had little clinical effect in either victim group, though disbelief could aggravate their symptoms.

Causers

Antisocial Group

Of the 25 causers, 8 fitted the young male antisocial alcoholic subset described above.

Case 3. A 25 year old man came from an antisocial family and he followed the family pattern both of criminal offences and causing MVI's. In one of the latter he caused the death of a friend. The man had been a heavy drinker from the age of 15. He drank to calm his anxiety, and he drank more when especially stressed. Alcohol released aggressive feelings for the deep hurts that he carried. The current incident followed immediately after his girlfriend rejected him. Fear of death in incidents was never an issue, and he never dwelt on past MVIs. Nor had he any remorse for any of the incidents he had caused, even where his friend was killed. He had not grieved for his friend.

All in this group were young males under the influence of alcohol at the time of the MVIs. They comprised the clinically most disturbed group. The MVI's were impulsive actions out on the basis of intense emotions in the context of additional stress to usual. Some in this group had caused repeated MVIs under stress.

None expressed regret for the MVI's that they caused, nor for their antisocial behavior in other areas. They did not seek treatment, and mostly I saw them briefly as a result of legal or social pressure.

Process 'Neurotic' Group

In this group of 17 patients, MVIs were but parts of other distressing psychosocial processes.

Case 4. A dependent woman had used pregnancy and overdoses to keep her husband bound to her. When she discovered her husband in bed with another woman, she decided reluctantly that the right thing was to leave her husband. As her anxiety mounted, the day prior to her departure she caused an MVI. She used the relatively minor resultant physical injuries as the reason that she could not leave her husband. As well, her symptoms elicited care and remorse from him.

Patients in this group tended to come from the psychotherapy part of my practice. They suffered a heterogeneous multitude of neurotic and personality problems, with extra stress at the time of the MVI's. The MVIs were akin to neurotic symptoms that could discharge emotions, be cries for help, or could be diminish acute distress. They could resemble other parasuicidal actions, such as overdoses. Here are some other examples.

Case 5. A man left his mother's wedding to a man his own age. Inebriated, and feeling enraged and hopeless, he drove his car into another vehicle.

Case 6. A woman caused an MVI just having had an esophagoscopy. To her the procedure symbolized a previous oral rape. She had caused a similar MVI two years previously after she had been prevailed on to swallow tablets against her will. At the time of both MVIs she felt highly distressed, angry, and disgusted with herself.

Case 7. A 50 year old strictly religious man had never been involved in an MVI, until he caused three serious ones within one year. They occurred after his daughter became pregnant out of wedlock, and his own marriage became strained as a consequence. The MVIs occurred after especially intense turmoils which evoked depressed and hopeless moods.

“Depression” occurred in some members of this group. Unlike in the PTSD group, it was not a clinical disorder, but a mixture of loss of control, powerlessness and despair. It could follow bereavement, in a few following death of a beloved in an MVI.

Case 8. A man had the first car crash in his life three days after his fiancée died in an MVI.

Case 9. A 16 year old learner driver caused an MVI soon after her birthday. Her older sister had been killed in a car crash when she was 16. The MVI served ambivalently to assuage survivor guilt by the patient joining her sister, as well as to draw her parents' attention away from her dead sister to herself.

A quarter of all causers had suffered recent deaths of close family or friends, so unresolved grief may have been a not infrequent factor in causer MVIs.

Anger was a common emotion in causers. It was present in all the young antisocial causers. Two had fantasized buying guns before their MVIs, and one had punched his baby before leaving home and causing an MVI. Anger and depression could coexist.

Case 10. A 32 year old woman carried a loaded gun “to shoot my violent husband if he threatened me again”. She drove recklessly when she caused an MVI, “I didn't care if I lived or died.” She had recently caused another MVI in which she could have been killed.

11 causers had multiple MVIs within one year. For three of the eight young antisocial males, MVIs appeared to be almost a way of life. Even so, close inspection revealed that they caused MVIs at times of extra stress.

Discussion

Clinical observations confirmed my first hypothesis, that is, the presence of victim and causer groups among those who experienced MVI's.

It may be argued that I simply confirmed my biases in this study. However, the clinical cases argue against that contention. Further, I did not anticipate finding heuristically sensible subgroups among victims and causers.

Yet the existence of the subgroups is supported in the literature. Most clearly, The PTS subgroup has been recognized in traumatology literature, and the antisocial one in traffic authority and epidemiological literature. The Vulnerabilities subgroup corresponds to Ford's (1978) "Humpty-Dumpty syndrome", where minor injuries puncture compensatory mechanisms, and release past stresses and traumas with their vast variety of biological, psychological and social symptoms. This clinical group we saw was hinted at in the trauma literature. The Process 'Neurotic' group corresponds to Hirschfeld and Behan's (1969) description of an 'accident process', where an apparent accident is in fact but a symptom in an emotionally more intense process. Each of these groups makes intuitive sense.

It can be argued that the sample was skewed, and that the sizes of the subgroups reflect referral patterns in a particular practice, rather than relative frequencies in the community. That is true, and the study is purely qualitative. It simply draws attention to the existence victims and causers and their subgroups. Even so, the proportions of PTSD and antisocial personality in the study correspond roughly to their community equivalents (10-20% each). It is likely that the vulnerable and process groups, especially the latter, are under-represented in this sample.

The study also confirmed the second hypothesis, that differentiation between causers and victims might help in MVI diagnosis, treatment and prevention.

Victim and causer groups and subgroups have been shown to have very different histories, predispositions, dynamics and consequences. The differences between the groups and subgroups help to explain the differences in symptomatology in subjects post-MVI.

As for treatment, PTS and PTSD sufferers require trauma therapy, and treatment for their comorbid conditions. In the vulnerable group, therapy may need to address the meaning of the MVI in terms of past vulnerabilities and traumas that the MVI re-evoked.

Treatment of the 'neurotic' causers may require resolution of their stresses and circumstances that made the MVI a symptom of their problems. This may require a variety of psychotherapies, such as crisis intervention, family therapy, or grief therapy. The sociopathic causers may require similar and possibly even more intense help.

Prevention of MVI's among potential causers may be attempted in clinical situations and in the community. In clinical situations, search for fantasies of causing MVI's should be routine in all clients suspected of potential self-harm or violence, in clients who have had previous MVIs, and in those whose families or close friends had MVIs. The underlying causes of the fantasies then need to be attended. Outside of the current study, I have identified 17 patients who had ideas of killing themselves by smashing their cars or throwing themselves under a vehicle. Happily, therapy resolved these fantasies, and to my knowledge none of the patients became involved in MVI's.

Community education may enhance prevention on a larger scale. Communities could be taught to take extra care when driving during stressful times. Such stressful times could be defined- upheavals at work and in relationships, bereavements (especially through MVI's) and their anniversaries, natural and man made disasters. Television vignettes depicting how distress,

anger, depression and anxiety contribute to MVIs may raise the level of awareness and caution in the community.

The antisocial group may need special help, and/or restraint on their driving. Their impulsivity, lack of learning from experience and lack of remorse make them a special menace, and this should be recognized. Too often their physical injuries evoke sympathy while their psychosocial problems escape scrutiny.

This report did not research in depth certain variables that have been found to be significant in PTSD research, such as severity of injury, head injury, dissociation, acute stress disorder, and arousal, and social support. The thrust of this paper was not on the details explored in many papers dealing with PTSD. Rather, it was to explore distinctions between victims and causers, and the potential clinical benefit of the distinctions. The variables that have provided a wealth of information in PTSD research can be extended to research other clinical groups in the future.

One last comment: I have avoided the word perpetrator, which is the usual label denoting the opposite pole to the word victim. Yet even the word causer may evoke stigma and blame. This is not my intention. We have seen that causers are victims too. They are part of a chain, or cycle, of negative experiences with which they try to cope.

Conclusion

This study highlights that involvement in MVI's is not of homogenous victim significance. It appears that in a significant proportion of cases, the human error in MVIs includes crises and emotions that overwhelm normal logic and concentration. Like guns in the drawer, or tablets in the cabinet, the ever present car is a ready means to impulsively express, dramatize, draw attention to, or even try to resolve conflicts, and in the process produce hapless victims.

Two victim and two causer clinical clusters were described, of which PTS and PTSD comprised one of the victim clusters. Recognition of victim and causer categories and their subgroups can help diagnosis, treatment and prevention of MVI's. In particular, clinical and community measures may diminish the widespread suffering due to this major source of trauma.

It is emphasized that this study is a pilot clinical one. It requires stringent future research to replicate and validate its findings.

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